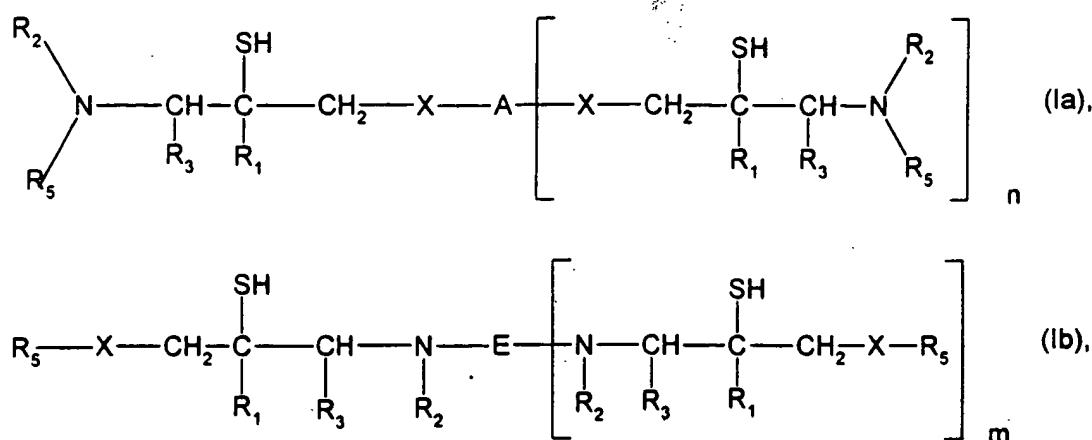


Patent claims

1. A compound of formula Ia or Ib,



wherein A is an (n + 1)-valent aliphatic, cycloaliphatic, araliphatic or aromatic radical and n is an integer from 0 to 5,

E is an (m + 1)-valent aliphatic, cycloaliphatic, araliphatic or aromatic radical and m is an integer from 0 to 3,

X is -O-, -COO- or -CHR₄-, with R₄ and R₃ together forming an ethylene group,

R₁ and R₂ are, each independently of the other, hydrogen or methyl,

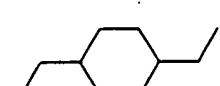
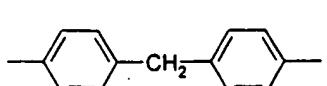
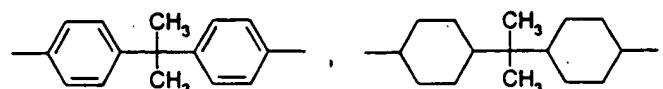
R₃ is hydrogen, or R₃ and R₄ together form an ethylene group,

and R₅ is a monovalent aliphatic, cycloaliphatic, araliphatic or aromatic radical.

2. A compound of formula Ia according to claim 1, wherein X is -O- and A is a bivalent radical of a bisphenol or of a cycloaliphatic diol, the radical of a phenol novolak or cresol novolak, the bi- to tetra-valent radical of an isocyanate/polyol adduct or the tri- to hexavalent radical of a tri- to hexa-functional aliphatic polyol.

3. A compound of formula Ia according to claim 1, wherein X is -O- and A is a bivalent

radical of formula

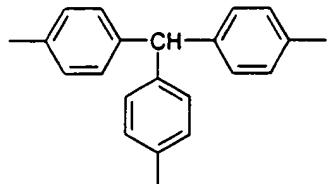
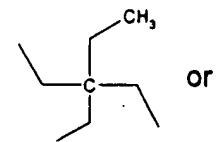


or

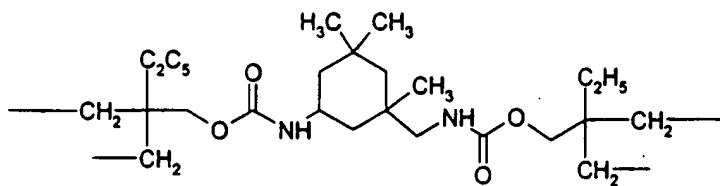


, the radical of a

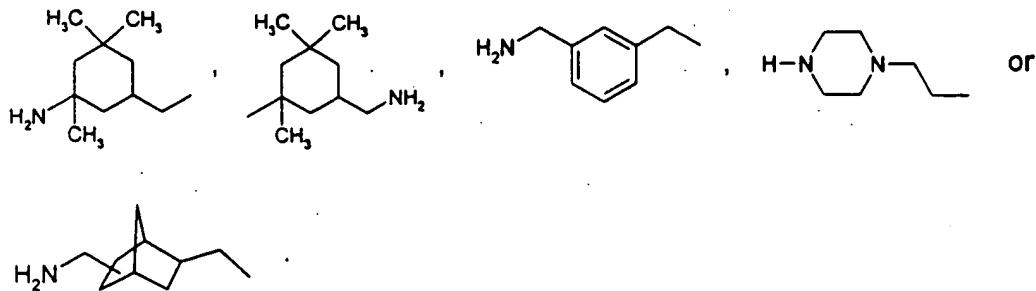
phenol novolak or cresol novolak, a trivalent radical of formula



or the tetravalent radical of formula

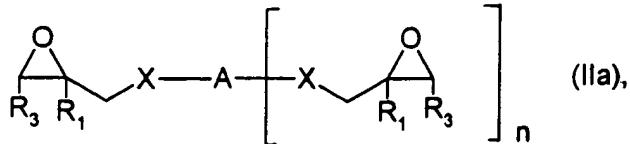


4. A compound of formula Ia or Ib according to claim 1, wherein R₅ is C₁-C₂₀alkyl, C₅-C₁₂-cycloalkyl, C₆-C₁₀aryl or C₇-C₁₂aralkyl, each of which is unsubstituted or substituted by one or more amino groups, hydroxyl groups, C₁-C₈alkoxy groups or halogen atoms.
5. A compound of formula Ia or Ib according to claim 1, wherein R₅ is C₂-C₁₀alkyl, C₂-C₁₀aminoalkyl, phenyl, benzyl, cyclohexyl or a radical of formula H₂N-Z-CH₂-NH-, wherein Z is a bivalent cycloaliphatic, araliphatic or aromatic radical or a radical of formula -(CH₂CH₂NH)_k-CH₂-, wherein k is 2 or 3.
6. A compound of formula Ia or Ib according to claim 1, wherein R₁ is n-butyl, n-octyl, cyclohexyl, benzyl, 2-aminoethyl, 4-(aminomethyl)pentyl, 5-amino-2-methylpentyl, 3-dimethylaminopropyl, 3-methylaminopropyl, 4-aminocyclohexyl or a radical of formula -CH₂CH₂NHCH₂CH₂NH₂,



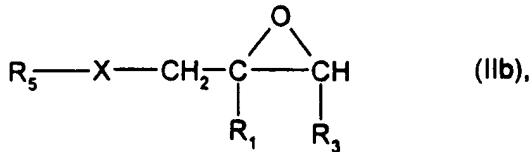
7. A compound of formula Ia or Ib according to claim 1, wherein X is O- and R₁ and R₃ are hydrogen.

8. A process for the preparation of a compound of formula Ia according to claim 1 by reacting a compound of formula IIa



wherein A, X, R₁, R₃ and n are as defined in claim 1,
with thiourea or a thiocyanate and subsequently reacting the resulting episulfide with an amine of formula R₅-NH-R₂ wherein R₅ and R₂ are as defined in claim 1.

9. A process for the preparation of a compound of formula Ib according to claim 1 by reacting a compound of formula IIb



wherein X, R₁, R₃ and R₅ are as defined in claim 1,
with thiourea or a thiocyanate and subsequently reacting the resulting episulfide with a polyamine of formula E-(NHR₂)_{m+1} wherein E, R₂ and m are as defined in claim 1.

10. A composition comprising

(A) an epoxy resin and

(B) a compound of formula Ia or Ib according to claim 1.

11. A composition according to claim 10 comprising, in addition,

(C) a polyamine.

12. A composition according to either claim 10 or claim 11 comprising component B and, where applicable, component C in such amounts that the sum of the amine and mercaptan equivalents is from 0.5 to 2.0 equivalents, based on one epoxy equivalent.
13. A cross-linked product obtainable by curing a composition according to claim 10.
14. Use of a composition according to claim 10 as coating composition, adhesive, bonding composition for composite materials or casting resin for the manufacture of mouldings.